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EXAMINER	
SHAH, NILESH R	

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2127	4

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Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No. 09/627,177	Applicant(s) NIELSEN ET AL.	
	Examiner Nilesh R Shah	Art Unit 2127	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 July 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07/27/00* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1- 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shackelford et al. (5,511,196) (hereinafter Shackelford)

As per claim 1 Shackelford teaches a method of updating an object association between a source object and a target object, comprising:

updating a target value holder of the target object to identify the source object and updating a source value holder of the source object to identify the target object; (col. 3 line 61 – col. 4 line 55) ('Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the

reference object.') ('Although the content of reference objects 42, 44, and 46 is the same, each object has a unique identifying name.')

wherein a value holder is an object that wrappers a target or source object in order to implement a proxy pattern (col. 3 line 61 –col. 4 line 55) (' ('The relationship between reference object 42 and data object 40, and between reference object 62 and data object 70 are strong relationships. Reference objects 42 and 62 will be maintained along with data objects 40 and 70. There will also be a validation that data objects 40 and 70 exist'). Shackelford does not specifically talk about transferring object associations over a network.

It is well know in the art of task management to transfer object associations over a network.

It should be noted that what is claimed and what is disclosed in Shackelford differs only in the sense that in the claimed invention, object associations are being transferred over a network, while in Shackelford data reference objects are transmitted over a network. In either case, data is being transferred over a communications system, and the form or function of that data is immaterial to what the scope of the invention is. Therefore, it would have been obvious to one of ordinary skill in the art to substitute the method of data reference objects as in Shackelford for object associations or any other type of data that is to be transmitted over a communications network. The discrepancy in type of data is immaterial, and the scopes of the inventions are essentially equivalent. One would want to transfer object associations over a network in order to

maintain user information within different computer in an efficient and timely manner. This would reduce the cost of updating object associations within the network.

As per claim 2, Shackelford teaches a method wherein if the object association is a one to one object association, the step of updating the target value holder includes:

setting the new target in the target value holder from the source, and removing the target from the old target value holder in the source, if the collection already contains the target and the step of updating the source value holder includes (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.'):

removing the source from the old source value holder in the target, if the collection already contains the source (col. 3 line 61 –col. 4 line 55) ('Multiple users, which may comprise actual users of other applications or systems, depicted by using object 48 and using object 50, within object oriented environment 52 may desire to access and modify data object 40, such as by deleting it or by sending it to another application.'); and

setting the new source in the source value holder from the target (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new

state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.').

It is noted again that Shackelford teaches of a method for transmitting data reference objects. As discussed for claim 1, the transfer data reference objects and records or any other type of data is analogous in the art of multicomputer data transferring, and is thus considered an insignificant difference.

As per claim 3, Shackelford teaches a method wherein if the object association is a one to many object associations, the step of updating the target value holder includes:

adding the new target to the target value holder collection from the source, if the collection does not already contain the target (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.');

and the step of updating the source value holder includes removing the source from the old source value holder in the target, if the collection already contains the source and setting the new source in the source value holder from the target (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies

a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.').

As per claim 4, Shackelford teaches a method wherein if the object association is a many to one object association, the step of updating the target value holder includes:

setting the new target in the target value holder from the source, and removing the target from the old target value holder collection in the source, if the collection already contains the target (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.');

and the step of updating the source value holder includes adding the new source to the source value holder collection from the target, if the collection does not already contain the source (col. 3 line 61 –col. 4 line 55) ('Multiple users, which may comprise actual users of other applications or systems, depicted by using object 48 and using object 50, within object oriented environment 52 may desire to access and modify data object 40, such as by deleting it or by sending it to another application.').

As per claim 5, Shackelford teaches a method wherein if the object association is a many to many object association, the step of updating the target value holder includes:

adding the new target to the target value holder collection from the source, if the collection does not already contain the target and the step of updating the source value holder includes(col. 3 line 61 –col. 4 line 55) ('Multiple users, which may comprise actual users of other applications or systems, depicted by using object 48 and using object 50, within object oriented environment 52 may desire to access and modify data object 40, such as by deleting it or by sending it to another application.'):

adding the new source to the source value holder collection from the target, if the collection does not already contain the source(col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.').

As per claim 6, Shackelford teaches a method wherein the value holder includes a method for setting source and target objects to be wrapped by the value holder, and a method for returning source and target objects wrapped by the value holder (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies

a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.') ('Referring to FIG. 3, there is depicted a block diagram of multiple users and associated reference objects established in accordance with the method and system of the present invention.').

As per claim 7, Shackelford teaches a method wherein the steps of updating a target and updating a source are performed using a value holder implemented in Java, C++, Smalltalk, Eiffel, or other object oriented language (col. 1 lines 11-64) ('The present invention relates in general to a method and system in a data processing system for the establishment of relationships between reference objects in an object oriented environment and a data object outside an object oriented environment and in particular to a method and system in a data processing system for the association of reference objects within an object oriented environment with a data object outside an object oriented environment.')

As per claim 7, Shackelford teaches a method wherein the value holder receives as input parameters one or more of: a value holder that an old, source currently points to, a value holder that an old target currently points to, a value holder that a source currently points to, a value holder that a target currently points to, a source value, a target value, a source cardinality; and a target cardinality (col. 3 line 61 –col. 4 line 55) ('A reference object within an object oriented environment created in this manner may be associated with a data object external to the object oriented environment. Thereafter, when a user modifies a data object, all associated reference

objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.') ('Referring to FIG. 3, there is depicted a block diagram of multiple users and associated reference objects established in accordance with the method and system of the present invention.').

Claims 9-14 are rejected based on the same rejections for claims 1,2, 5-8 respectfully.

Claims 15-22 are rejected based on the same rejections for claims 1-8 respectfully. It should be noted that what is claimed and what is disclosed in Shackelford differs only in the sense that in the claimed invention, object associations instructions are being transferred over a network, while in Shackelford data reference objects are transmitted over a network. In either case, data is being transferred over a communications system, and the form or function of that data is immaterial to what the scope of the invention is. Therefore, it would have been obvious to one of ordinary skill in the art to substitute the method of data reference objects as in Shackelford for object associations instructions or any other type of data that is to be transmitted over a communications network. The discrepancy in type of data is immaterial, and the scopes of the inventions are essentially equivalent.

Claims 23- 28 are rejected based on the same rejections for claims 1,2, 5-8 respectfully.

As per claim 29, Shackelford apparatus for updating an object association between a source object and a target object, comprising:

means for updating a target- value holder of the target object to identify the source object and means for updating a source value holder of the source object to identify the target object (col. 3 line 61 –col. 4 line 55) ('Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.') ('Although the content of reference objects 42, 44, and 46 is the same, each object has a unique identifying name.') ;

wherein a value holder is an object that wrappers a target or source object in order to implement a proxy pattern (col. 3 line 61 –col. 4 line 55) ('The relationship between reference object 42 and data object 40, and between reference object 62 and data object 70 are strong relationships. Reference objects 42 and 62 will be maintained along with data objects 40 and 70. There will also be a validation that data objects 40 and 70 exist').

As per claim 30, Shackelford apparatus for deleting an object association between a source object and a target object comprising means for updating a source value holder of the source object to identify the target object; and means for updating a target value holder of the target object to identify the source object (col. 3 line 61 –col. 4 line 55) ('Thereafter, when a user modifies a data object, all associated reference objects are also modified to reflect the new state

of the data object. Similarly, when a user modifies a reference object, the associated data object is also modified to reflect the new state of the reference object.') ('Although the content of reference objects 42, 44, and 46 is the same, each object has a unique identifying name.');

wherein a value holder is an object that wrappers a target or source object in order to implement a proxy pattern (col. 3 line 61 –col. 4 line 55) ('The relationship between reference object 42 and data object 40, and between reference object 62 and data object 70 are strong relationships. Reference objects 42 and 62 will be maintained along with data objects 40 and 70. There will also be a validation that data objects 40 and 70 exist').

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nilesh R Shah whose telephone number is 703-305-8105. The examiner can normally be reached on Monday-Friday 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Grant can be reached on 703-308-1108. The fax phone number for the organization where this application or proceeding is assigned is (703)305-0040.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

PRIMARY EXAMINER

NS

December 10, 2003